

Remarks:

Claim 12 has been amended. The other claims were previously presented.

Claim Rejections – 35 USC 103

Applicant has amended claim 12 to traverse the rejection that claim 12 is unpatentable over “Stegemeier” (US publication No. 2003/0056952) in view of “Traylor” (US 6,017,198).

Claim 12 has been amended to clarify the following distinction in reciting that “an ejected quantity of the tracer is capable of being determined by measuring a displacement of the magnetic ring mounted on the piston relative to the switches mounted on the body”.

An advantageous effect of the claimed ‘ring magnet/hall effect’ configuration is that it is possible to use with corrosive tracer materials. Specifically, by using the Hall Effect it is possible to avoid any contact between the sensors and corrosive tracer. This is described in the last sentence of paragraph [0073] of the application. Thus, by mounting the magnetic ring on the piston and mounting the Hall Effect switches on the body, this configuration allows for measuring a displacement of the piston relative to the body and providing a non-invasive technique for measuring and controlling the amount of tracer injected into the wellbore.

Stegemeier mentions the use of a sealed piston to replace a bladder (paragraph [0079]), but fails to disclose mounting anything on the piston. More specifically, there is no disclosure in Stegemeier of mounting a magnetic ring on the piston or of measuring the displacement of the piston with magnetic hall effect switches as claimed.

Examiner turns to Traylor in this regard, but Traylor is not concerned with measuring the injection of tracer element or even with the claimed piston arrangement having a magnetic ring located thereon. Instead Traylor is concerned with a pump, more specifically a diaphragm pump with Hall Effect switches 25 and 33 for supplying electrical current to a solenoid valve. The movement of the diaphragm appears to activate switches 25 and 33 for supplying electrical current to energize the solenoid to carry out a pumping operation. Thus, there is no teaching of using the Hall Effect to measure the quantity of tracer injected as claimed.

Simply put, there is no teaching in either Stegemeier or Traylor of “*at least one magnetic ring mounted on the piston*” in the claimed configuration or of using the relevant displacement of the piston in relation to the body for achieving the advantages of non-invasive measurement of an injected corrosive tracer.

Furthermore, MPEP 2142 outlines one of the basic conditions for establishing a prima facie case for obviousness, which has not been met, since there is no suggestion in either Stegemeier or Traylor for combining teachings. Indeed, the skilled person having knowledge of Stegemeier at the time of the present application, would not have been motivated to turn to Traylor, since this is in a wholly different field, i.e. submersible pumps.

Even if a person having ordinary skill in the art would have combined the teachings of Stegemeier with Taylor, it is not clear that that the systems of Stegemeier and Traylor are physically compatible. While Stegemeier alludes to a sealed piston arrangement according to an alternative embodiment, Stegemeir does not disclose or even suggest that magnets are located thereon and thus fails to disclose how magnets are positioned. Traylor is not even concerned with a piston, rather with a diaphragm operating on pressure differentials. Therefore, the

systems appear to be physically incompatible and teach away from combination by a person having ordinary skill in the art.

As claims 15, 16, 22-24, and 27-33 depend directly or indirectly from independent claim 12 and add additional limitations thereto, Applicants submit that these claims are also allowable for at least the same reasons set forth with respect to independent claim 12. Therefore, Applicants assert that the rejections related to these claims are overcome.

Accordingly Applicants believe that all pending claims are in condition for allowance and early passage to issuance is warranted. This Response is submitted in response to the Office Action mailed May 13, 2008 for which the three-month date for response was August 13, 2008. Pursuant to 37 C.F.R. § 1.136(a), Applicants petition for an extension of time of three months in which to respond to the Office Action. The three month extension will bring the deadline for response to November 13, 2008 which is within the six-month statutory period.

Please apply any additional charges or any credits, to Deposit Account 50-2183 (Reference Number 21.1208).

Dated: November 13, 2008

Respectfully submitted,

By: /David J. Smith/
David J. Smith
Registration No.: 57,135
Schlumberger Technology Corp.
200 Gillingham Lane
Sugar Land, TX 77478
281-285-7114 (tel)
281-285-8821 (fax)